

Early Action Compact Milestone - June 2003 - Progress Report
Bureau of Air Quality – DHEC
State of South Carolina

1. Document progress in developing stakeholder process, including, for example, roles and responsibilities of various stakeholder groups, list of stakeholders, brief summary of stakeholder meetings, stakeholder involvement in development of initial list of control measures, etc.

A Notice of Drafting (NOD) was published in the South Carolina *State Register* on August 23, 2002, expressing our desire to pursue an early action plan that provides for ambient air in South Carolina that meets the more restrictive federal standard prior to the deadline(s). The NOD requested those interested in participating in an early action plan for ground-level ozone provide that interest in writing to the Department. Due to the timing of events and the requirements of the State's Administrative Procedures Act, a second drafting notice was published in the *State Register* on April 25, 2003, the purpose of which was to extend the comment period. Copies of both notices are included as Attachment 1.

The South Carolina Department of Health and Environmental Control (DHEC) has established a large stakeholder group consisting of federal, state and local government officials, environmental groups, citizens groups, business, industry and private citizens. The initial stakeholder list, generated by staff and including those requesting to participate as a result of the NOD is included as Attachment 2. On August 26, 2002, correspondence was issued to the stakeholders identified in Attachment 2, seeking active participation in the development of an Early Action Plan (EAP) regarding ground level ozone reduction in South Carolina and providing a list of informational forums scheduled throughout the state. A copy of this correspondence and associated attachments is included as Attachment 3. Surveys were a part of the informational forum and included an opportunity for attendees to request active participation in the EAP process. Copies of sign-in sheets, meeting agendas, and survey forms are included as Attachment 4.

Local stakeholder participation was obtained through the involvement of the county administrators and/or county councils. On November 12, 2002, the South Carolina Association of Counties issued correspondence to each county council chairman and county chief administrative officer stating support of each county's participation in South Carolina's 8-hour Ozone Early Action Compact (EAC). A copy of this correspondence is included as Attachment 5. Also on November 12, 2002, DHEC issued correspondence to county administrators seeking active stakeholders for participating in the EAC. This correspondence included a working draft copy of the EAC and is included as Attachment 6. As a result, DHEC staff participated in numerous county council meetings and other discussions (telephone and electronic mail) with county officials seeking local participation in the EAP process. On December 12, 2002, DHEC staff presented at the yearly meeting of county administrators sponsored by the South Carolina Association of Counties. At the request of several counties and the Association of Counties, DHEC again issued correspondence to the county's seeking participation. A copy of this correspondence, issued December 12, 2002 is included as Attachment 7.

On December 20, 2002, DHEC submitted to EPA the Early Action Compacts received as of that date, signed by the respective local participant and DHEC representative, R. Lewis Shaw, Deputy Commissioner for Environmental Quality Control. On December 27, 2002 and again on December 31, 2002, DHEC submitted additional compacts received from local participants. As of December 31, 2002, forty-five of the forty-six counties in South Carolina elected to become active stakeholders in the

South Carolina Early Action process. Specific information for each county is included in the local progress reports submitted by the respective county.

One condition set by EPA Region 4 for York, Chester, and Lancaster counties participation in the EAC, requires South Carolina continue to actively participate in the Charlotte Region Integrated Air Quality Management Pilot Project. This project has since been renamed “Sustainable Environment for Quality of Life” (SEQL). In addition to the milestones established in the Early Action Compact, South Carolina and North Carolina were required to develop a specific memorandum of understanding (MOU) detailing how this requirement will be met. On March 14, 2003, Mr. R. Lewis Shaw, Deputy Commissioner for Environmental Quality Control at DHEC and Mr. William G. Ross, Jr., Secretary for the North Carolina Department of Environmental and Natural Resources signed the MOU, included as Attachment 8.

South Carolina was not required to enter into a formal agreement with the state of Georgia in regards to emission reduction strategies for the Upper and Lower Savannah areas. However, representatives from the state of Georgia attended the Lower Savannah Council of Government meeting held on February 6, 2003. Representatives from EPA also attended this meeting. In addition, DHEC staff attended a meeting held on February 21, 2003, in Augusta, Georgia, with local and state government officials from Georgia and South Carolina and EPA to discuss the impact of the early action process and emission reduction strategies for that area.

While the early action process was developed to provide local areas the option to attain the 8-hour ozone standard by December 31, 2007, and obtain cleaner air sooner than federally mandated by implementing emission reduction strategies that make sense for their respective area, South Carolina also realized that statewide emission reduction efforts would be necessary to achieve and maintain the 8-hour ozone standard. Strategies such as a statewide NO_x control regulation; review of the statewide open burning regulations; a program for state government to lead by example; and, plans to ensure transportation projects consider local and state air quality goals are addressed in the June 16, 2003, List of Emission Reduction Strategies Under Consideration. The following is a brief overview of the development of these workgroups and other initiatives.

NO_x Control Technical Advisory Workgroup

Bureau of Air Quality staff reviewed existing state NO_x and VOC regulations to determine if changes could be made that would result in NO_x and VOC reductions. The goal of this workgroup was to develop a regulatory strategy to assist with NO_x and/or VOC reductions from industrial sources to assist with the EAP. A draft regulation(s) was developed requiring new sources, which would have otherwise not been required to install NO_x controls, to install a reasonable level of control. The regulation would exempt units that are regulated by other NO_x regulations with equivalent requirements. As a result, the stakeholder advisory workgroup was established. An electronic mail message was sent to those that had attended previous meetings inviting them to participate. In an effort to keep the number of workgroup participants down to a manageable number, similar industry representatives were asked to elect one person to serve as their representative. The initial name of the workgroup was the Best Available Control Technology Technical Advisory Group but has since been renamed the NO_x Control Technical Advisory Workgroup. To date, meetings have been held on May 5, 2003 and May 27, 2003. A list of the members of this workgroup and copies of meeting notes is included as Attachment 9. The next meeting is scheduled for June 19, 2003.

Individual Meetings with Industry Representatives Initiative

Bureau of Air Quality staff have met with individual industry representatives in an effort to negotiate emission reductions. The intent is to focus on several large NO_x emitters, particularly those with few

existing NOx controls that are impacting potential non-attainment areas, to negotiate reductions through the permitting process or consent agreement. This is being done in lieu of developing statewide regulations on existing industrial sources. Meetings with various industry have been held on May 1, 2003, June 2, 2003, and June 11, 2003. Other meetings are scheduled.

Open Burning Workgroup

Bureau of Air Quality staff and representatives from the Environmental Quality Control District Offices reviewed the existing state regulation (R.61-62.2, Prohibition of Open Burning) to determine what changes, if any, could be made to the regulation that would reduce statewide NOx emissions as part of the Early Action Plan. A stakeholder meeting was held on June 10, 2003. Another meeting has been scheduled for July 1, 2003. A list of those attending the meeting and meeting notes are included as Attachment 10.

Clean Air Initiatives for Government Entities (CAIGE) Workgroup

Bureau of Air Quality staff were charged with the task of developing, implementing and marketing a plan for reducing precursors to ground-level ozone emissions by state government that supports the Early Action State Implementation Plan initiative. Bureau staff solicited participation from other state government agencies to include the transportation sector and property maintenance agencies. Also included were local Council of Governments and the Palmetto State Clean Fuels Coalition.

Workgroup meetings were held February 12, 2003, February 26, 2003, and April 30, 2003. There have also been several meetings of the Bureau staff in preparation for and assessing the workgroup meetings. A major accomplishment of the group is the passing of a Concurrent Resolution by the South Carolina State Legislature on May 14, 2003. This resolution supports the activities of the Department's establishment and implementation of the state's early action approach for complying with the 8-hour ozone standard and provides for the establishment of an intergovernmental workgroup for the purpose of promoting behaviors and policies to reduce air pollution throughout the state of South Carolina. Bureau staff drafted an Air Pollution Reduction Policy to be adopted by the Executive Management Team of DHEC and utilized as an example for other state agencies to consider. A list of the workgroup members, copies of the meeting notes and a copy of the concurrent resolution is included as Attachment 11.

Smart Highways Workgroup

A workgroup has been formed to develop a plan that ensures transportation plans, programs, and projects consider statewide and local air quality goals. Certain aspects of the Transportation Conformity regulations may be incorporated into such a plan. Once a draft plan has been developed, the workgroup will solicit participation from local metropolitan planning organizations. A list of the workgroup members can be found in Attachment 12.

2. Report progress on evaluating and selecting emission reduction measures for the local control strategy.

See June 16, 2003 submittal *List of Emission Reduction Strategies Under Consideration*.

3. Describe public outreach activities (press coverage, public presentations, websites, etc.)

DHEC is aware of the fact that public involvement through education and outreach plays a major part in the success of an early action program whether it be a statewide program or a local program.

The Air Education and Outreach Section is responsible for increasing awareness, educating, and encouraging behaviors for improving air quality among various segments of the population in South Carolina. As a result of the early action process, several fact sheets have been updated and new fact sheets have been created. This information is available by contacting the office and is also available on the DHEC website (www.scdhec.net/baq/eap.html). This information has been provided to local areas to assist in the local education and outreach efforts.

Section staff also developed initiatives targeting school aged youth that include the following:

- a. Ozone Action Class – An interactive program focusing on how to reduce ground-level ozone forming air pollution through the outreach efforts of local schools; and,
- b. A Competition for Cleaner Air – an interactive website designed for students to record their daily behavior changes that will help reduce ground-level ozone forming air pollution.

Resource materials in place or that have been developed for public outreach include the following:

- “Driving Smarter for Tomorrow” brochure
- “Ozone Action Class” brochure
- “Care About Air” coloring book
- “Spare the Air” bookmark.

The “GreenScene Magazine” published by DHEC’s EQC Outreach Committee, provides a one-stop shop of the environmental education programs offered by DHEC. The first issue published in the Fall of 2002, contained an article entitled “Ozone is Not Just Another Season.” This committee is responsible for numerous projects that promote environmental education, both internal and external to DHEC. One of the projects is a series of monthly environmental e-mails sent to all DHEC staff. May’s message was “Clean Air Month” and informed staff that Governor Sanford proclaimed May 1-7 as **Ozone Awareness Week**. A copy of the magazine, the message, and the proclamation are included as Attachment 13. Other activities include Earth Today Broadcast, Earth Camp, and, Kids Day events.

New graphics were introduced on the Bureau’s web site as of May 1, 2003. The existing ozone forecast web page was revised to reflect all four forecasted regions in South Carolina and color coded to align with EPA’s Air Quality Index. The new graphics will make the Air Quality Index easier to read and understand by the public who use this web site. A copy of the web page is included as Attachment 13.

Website

One of the first outreach activities included the establishment of a website (www.scdhec.net/baq/eap.html) for stakeholders to obtain updated information regarding the early action process. The website address was given in the initial press release (August 28, 2002) and continues to be included on correspondence and presentations.

Ozone Events – DHEC sponsors Ozone Awareness events to educate areas on the ozone standard, forecasting and measures that can be taken to reduce ground-level ozone. Following, is a schedule and summary of the 2003 Ozone Events:

April 26, 2003 - Central Savannah River Area

“Kids Earth Day” held on Saturday, April 26, was attended by approximately 1,000 children residing in the Aiken/North Augusta area. DHEC’s Central Office and District Bureau of Air Quality (BAQ) staff assisted children in playing Air Jeopardy as well as leading them through an educational exhibit on ground-level ozone. Prizes were also distributed.

April 29, 2003 - Pee Dee Area

A community meeting was held at the Pee Dee Regional Council of Governments office in Florence. Various community members and media were invited to attend this meeting for an educational program on ground-level ozone and health implications due to ground-level ozone exposure. This event was well attended and received excellent media coverage.

May 1, 2003 - Central Midlands Area

A partnership with WACH 57 TV was formed with BAQ staff to promote the Bureau’s “Ozone Action Class.” This is a web-based program encouraging students to find solutions to reduce ground-level ozone pollution. Spears Street Elementary School in Newberry County was the first recognized Ozone Action Class by weatherman Cary Allen and BAQ staff member, Amy Curran. WACH 57 incorporated the day’s events, along with promoting Ozone Awareness Week, on their nightly weather segment that evening. A copy of the electronic mail provided by WACH 57 TV is included as Attachment 13.

June 28, 2003 Upstate

DHEC’s BAQ and Recycling Office is partnering with the Upstate Air Quality Advisory Committee to hold a gas can exchange event in this three county region. It is anticipated to have a large community turnout and exchange 500 old metal/plastic cans for a spill-proof, CARB approved 2 gallon plastic can. This is a first of a kind event for South Carolina. As well as new gas cans, educational materials will be distributed.

Public Presentations

Numerous public presentations by DHEC staff regarding the 8-hour ozone standard and the early action process have been held. Refer to the June 2003 progress reports submitted by the individual participating areas for meeting dates within their respective area (i.e. county council meetings and stakeholder meetings).

September 6, 2002 – South Carolina Chamber Environmental Technical Committee

Informational forums seeking active participation in the development of an Early Action Plan were held during the month of October.

October 1, 2002 – Columbia

October 3, 2002 – Greenville

October 8, 2002 – Florence

October 10, 2002 – Rock Hill

October 15, 2002 – Aiken

October 16, 2002 - Charleston

October 3, 2002 - Ozone Season and the Early Action Plan – COG’s, MPO’s, FHWA, FTA, and the SCDOT Partnering for Improved Transportation; Archives and History Center Auditorium, Columbia

October 3, 2002 – Spartanburg County Industrial Association

October 21, 2002 – Spartanburg County Council

October 25, 2002 – Lexington County Fire Service (Ozone)

November 4, 2002 – South Carolina Association of Counties

November 7, 2002 – Camden Rotary Club

November 21, 2002 – Upstate Air Quality Summit

November 26, 2002 – Columbia Area Transportation Study (COATS MPO)

December 3, 2002 – Meeting with Environmental Groups

December 3, 2002 – Edgefield County

December 3, 2002 – Oconee County

December 3, 2002 – Colleton County

December 4, 2002 – Clemson Chamber of Commerce

December 9, 2002 – Fairfield County

December 10, 2002 – Lexington County

December 11, 2002 – Chester County

December 11, 2002 – Union County

December 12, 2002 – South Carolina Association of Counties

December 17, 2002 – Pee Dee COG meeting

December 30, 2002 – Fairfield County

January 7, 2003 – Smart Highways

January 22, 2003 – Darlington County Steering Committee

DHEC held meetings in ten different areas around the state. These meetings were held at the local Council of Government (COG) office and were “kick-off” meetings held with the local participating areas (i.e., county officials; COG representatives; EPA attended three; and, where applicable adjoining state representatives). Attachment 14 includes a copy of correspondence issued on January 27, 2003,

to the county contacts, which included resources such as the Air Quality Improvement Tools for Local Governments.

January 27, 2003 – Santee Lynches

January 28, 2003 – Central Midlands

January 30, 2003 – Appalachian

February 3, 2003 – Pee Dee

February 4, 2003 – Upper Savannah

February 5, 2003 – Berkeley-Charleston-Dorchester

February 6, 2003 – Lower Savannah

February 10, 2003 – Catawba

February 11, 2003 – Waccamaw

February 13, 2003 – Low Country

February 4, 2003 – North Carolina EAC meeting

February 10, 2003 – Sustainable Environment for Quality of Life” (SEQL) Meeting

February 11, 2003 – Partners for Public Road and Utility Improvements (PPG) meeting held in Darlington County. Group consists of local government, utility, and county representatives.

February 12, 2003 – Council of Governments monthly directors meeting

February 18, 2003 – Richland County

February 20, 2003 – South Carolina Association of Pulp and Paper Alliance meeting to discuss the Early Action Plan and regulatory strategies

February 21, 2003 – Augusta, Georgia – Fall Line Air Quality Study and Impact on Early Action Compact

February 24, 2003 – South Carolina Department of Commerce

February 25, 2003 – Greenville Chamber of Commerce Air Quality Workshop

February 26, 2003 – Ozone Early Action Update – Informational meeting held in Peeple’s Auditorium and broadcast live to 10 Environmental Quality Control District Offices around the state.

March 5, 2003 – Darlington County Stakeholder meeting

March 13, 2003 – Richland County

March 25, 2003 – Environmental Advisory Committee of the Sustainable Universities Initiative at the University of South Carolina

March 25, 2003 – Greenville Chamber of Commerce Environmental Subcommittee; Emissions Inventory discussion

April 1, 2003 – Meeting to discuss Federal Facilities involvement in the Early Action Plan

April 3, 2003 – Anderson County Chamber of Commerce

April 14, 2003 – Dorchester County Stakeholder meeting

April 16, 2003 – Darlington County and Florence County joint industry meeting

April 17, 2003 – Presentation given to EQC Professional Engineers for continuing education credits.

April 17, 2003 – Sumter County Stakeholder meeting

April 22, 2003 – Anderson – Upstate Group Stakeholder meeting

April 24, 2003 – CAPCA meeting; presentation given on the Early Action Plan

April 29, 2003 – South Carolina Department of Commerce

May 5, 2003 – Statewide MPO and SCDOT meeting; EPA presentation

May 6, 2003 – South Carolina Environmental Excellence Council Meeting; Columbia

May 6, 2003 – Georgetown County Stakeholder meeting

May 7, 2003 – Shaw AFB - Department of Defense P2 Alliance Meeting

May 12, 2003 – Florence County

May 13, 2003 – Rock Hill – Charlotte Regional Alliance for Transportation (CRAFT) meeting

May 13, 2003 – Greenville - Upstate Group Stakeholder meeting

May 14, 2003 – Darlington County Stakeholder meeting

May 14, 2003 – Sumter County Stakeholder meeting

May 14, 2003 – Chester County Stakeholder meeting

May 14, 2003 – Williamsburg County Stakeholder meeting

May 19, 2003 – Columbia – Meeting set to discuss 8-hour ozone standard and comment on geographic areas that might be designated as non-attainment.

May 19, 2003 – Edgefield County

May 19, 2003 – Charleston – Citizens Advisory Panel for Mead Westvaco

May 20, 2003 – Kershaw County Stakeholder meeting

May 21, 2003 – Richland County Stakeholder meeting

Press Coverage

Numerous press releases, news publications and television reports have been done on the early action process. Additional articles for specific areas may be found in the local progress reports submitted by the participating areas. The following press releases and news articles are included as Attachment 15.

August 28, 2002 – DHEC press release – “Planning for Cleaner Air Sooner”

September 3, 2002 – Bureau of National Affairs Daily Environment out of Atlanta announced South Carolina’s decision to take advantage of EPA’s offer to implement early measures to meet the 8-hour ozone standard.

September 5, 2002 – Greenville News – “Upstate will meet new clean air standards before deadline, DHEC says”

Fall 2002 – The Palmetto Planner – A Publication of the South Carolina Chapter of the American Planning Association – included article titled “The Bureau of Air Quality’s Early Action Plan for the 8-Hour Ozone Standard.

September 25, 2002 – DHEC press release – “Meeting on air quality plan set for Oct. 1”

October 1, 2002 – The State – “Groups oppose state’s ozone plan”

October 4 – Greenville News – “Early air effort could keep EPA at bay”

October 4 – Spartanburg Herald-Journal - “DHEC outlines clean-air proposal; State health officials on Thursday explained to an Upstate audience a proposal they say is a common-sense approach to cleaning up South Carolina’s air sooner.”

October 8, 2002 – Morning News – “Pee Dee air quality not up to par of EPA”

October 17, 2002 – Charleston Post and Courier – “State asked to get a jump on tougher ozone standards” – Article summarizing public meeting held in Charleston by DHEC.

November 14, 2002 – Anderson Independent-Mail – “Government agrees to ozone deadline”

November 22, 2002 – Spartanburg Herald-Journal – “Air quality resolution wins support”

November 27, 2002 – Clean Air Today – “SC Officials Discuss Air Quality Plans at Summit”

December 2002 – Spartanburg Herald Journal – “Council votes to join 3-county compact to improve air quality”

December 2002 – Augusta Chronicle – “City considers air-quality plan”

January 2003 – The Charlotte Observer – “York County is trying to get jump on upcoming new standards”

January 30, 2003 – Darlington News and Press – “Ozone problem threatens local economy, DHEC reps, local industry meet to help county avert federal penalties”

February 21, 2003 – DHEC press release – “Ozone early action update meeting Feb. 26”

February 27, 2003 – Anderson Independent Mail – “State wants ideas to clean the air”

February 27, 2003 – The State – “S.C. making plans to clean up its air”

April 28, 2003 – DHEC press release – “Ozone forecasting begins in Pee Dee”

April 28, 2003 – Morning News – “Pee Dee counties added to ozone program”

April 29, 2003 – The Post and Courier – “4 counties to be added to S.C.’s ozone forecast”

April 30, 2003 – Morning News – “Greater ozone awareness brought to Pee Dee”

May 13, 2003 – Anderson Independent Mail – “Group creates plan to reduce Upstate Ozone”

May 15, 2003 – DHEC press release – “Meeting set to discuss air quality proposal”

June 9, 2003 – Anderson Independent Mail – “State warns of sun’s rays and ozone today”

June 9, 2003 – DHEC press release – “Legislators support air quality early action plans”

June 11, 2003 – DHEC press release – “Gas can trade will help air quality” (also includes 2 Public Service Announcements)

4. Provide update on modeling/technical planning activities.

The Technical Protocol, *8-Hour Ozone Modeling Analysis and Attainment Demonstration for South Carolina’s Early Action Compact*, was submitted as Attachment 4 to EPA on Dec. 20, 2002, along with the signed Early Action Compacts.

South Carolina is using the Urban Airshed Model (UAM-V) for our analysis. This model has been used in previous ozone attainment analyses including work done in OTAG and the Gulf Coast Ozone Study (GCOS). Along with the UAM-V model, we are using the MM5 model for processing the meteorological data in the model, EPS2.5 for emissions inputs, BEIS-2 for biogenic emissions, and MOBILE6 for mobile source emissions.

The base year for our ozone episode is 1998. This episode was selected per EPA's *"Use of Models and Other Analyses in Attainment Demonstrations for the 8-hour Ozone NAAQS."* On June 11, 2003, DHEC requested EPA to allow the use of 1998 emission data as the current inventory instead of 1999 since this is a more representative and conservative case. Point source NOx emissions for 1999 decreased by 53 tons per day as compared to 1998 emissions. A copy of this correspondence is included as Attachment 16.

Development of the meteorological model is complete. The results have been compared against meteorological data for the time period; for areas where meteorological data was not available, the MM5 results were evaluated for reasonableness in addition to spatial and temporal consistency.

Current modeling activities involve modeling the 2010 and 2007 future year base cases. A 2010 future base case had been selected prior to the beginning of the EAC work. Since 2007 was selected for the EAC, an emissions inventory has been developed and is in the process of being quality assured by staff.

The issues that have been encountered so far involve the running of the model on a remote workstation. South Carolina had been working on developing a base case and 2010 future year base case prior to the EAC. As a result, the issues involved with the original development of a base case episode had been resolved before work on the EAC had begun. There are occasional issues in data transfer to the workstation and changes in scripts for running the model.

South Carolina is also working with neighboring states in their modeling efforts. The intent is to share episode data to strengthen everyone's modeling conclusions. We are also working on providing responses to EPA's comments on South Carolina's ozone modeling protocol.

Southeast EAC Models and Emissions Inventory Workgroup

South Carolina is also working with neighboring states in their modeling effort. Staff members from South Carolina, North Carolina, Georgia, Virginia, West Virginia, Tennessee, and Maryland held a meeting on February 20, 2003, and conference calls on March 28, 2003, and May 16, 2003 to discuss processes and sharing of data, information and resources. A more detailed description of the workgroups initiatives will be included in the December 2003 progress report.